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# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## INTERDEPARTMENT CORRESPONDENCE

FILE

STP-151-1(5)/STP-0003-00(061) Murray County OFFICE Preconstruction

P. I. Nos. 631550/0003061

DATE

September 6, 2002

**FROM** 

Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO

SEE DISTRIBUTION

# SUBJECT REVISED PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

Attachment

#### DISTRIBUTION:

David Mulling

Harvey Keepler

Jerry Hobbs

Herman Griffin

Michael Henry

Phillip Allen

Marta Rosen

Ben Buchan

Gerald Ross

Kent Sager

**BOARD MEMBER** 

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

### INTERDEPARTMENT CORRESPONDENCE

FILE

STP-151-1(5) & STP-003-00(061)

**OFFICE** 

Road Design

Murray County PI # 631550 & 0003061

DATE

July 8, 2002

**FROM** 

Gerald M. Ross, P.E., State Road & Airport Design Enginee

TO

C. Wayne Hutto, P.E. Assistant Director of Preconstruction

**SUBJECT** 

REVISED PROJECT CONCEPT REPORT

Attached is the original copy of the revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

The concept report has been revised to split the original project into two separate phases or projects. The new limits and description for the original project is SR 225/Spring Place Bypass from New Hope Road to SR 52/US 76. The new or second project has been assigned project number: STP-0003-00(061) – Spring Place Bypass from SR 52/US 76 to SR 225 south of Mill Creek.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and/or the State Transportation Inprovement Program (STIP).

**APPROVED** 

State Transportation Planning Administrator

Date

GMR:JSS:ss

cc:

David Mulling w/attachm.

Harvey Keepler w/attachm.

Phillip Allen w/attachm.

Marta Rosen w/attachm.

Herman Griffin w/attachm.

Kent Sager w/attachm.

Paul Liles w/attachm.

7007 8 2002

# REVISED PROJECT CONCEPT REPORT

Need and Purpose: As described in the project concept report.

Project Location: As described in the project concept report.

Description of approved concept: The approved project concept for STP-151-1(5) in Murray County consists of the reconstruction of a portion of SR 225 and the relocation of a second portion of SR 225 to create a bypass around the community of Spring Place. The improvements would begin at CR 104/New Hope Road where SR 225 would be reconstructed from a two-lane rural section to a four-lane urban section to north of CR 105. The project would then continue on new location to the west to bypass Spring Place and would be constructed as a four-lane divided rural section, rejoining existing SR 225 just south of the Conasauga Mill Creek bridge. As part of the project, a crossover section of road would be constructed on new location from CR 40/Spring Place-Smryna Road to the beginning of the new location portion of the bypass.

#### PDP Classification:

Full Oversight (), Exempt (x), SF (), Other ()

Functional Classification:		Rural Minor Arterial
SIX 223	s	
Traffic (AADT) – Existing 1998: SR 225		11,700 vpd
Traffic (AADT) – Design Year 2 SR 225		19,700 vpd

**Proposed features to be revised:** Due to funding allocation procedures, it is recommended that the approved project concept be revised such that the original project be split into two independent projects to be constructed in two phases. A Project Identification number would be assigned to each project. Phase I would construct STP-151-1(5) – SR 225/Spring Place Bypass from New Hope Road to SR 52/US 76. Phase II would construct STP-0003-00(061) – SR 225/Spring Place Bypass from SR 52/US 76 to SR 225 south of Mill Creek.

June 25, 2002

Project Number: STP-151-1(5) Phase I

STP-0003-00(061) Phase II

P.I. Number:

631550/0003061, Murray County

State of Georgia Department of Transportation

**Describe the revised feature(s) to be approved:** As a result of the revised project termini, the original project length of 5.64 miles would be divided between the two phases. Phase I would begin on SR 225 near MP 9.18 (New Hope Road), proceed north to MP 10.31 (Imperial Boulevard) at which point the project would shift onto new location to the west of Spring Place to SR 52/US 76. Phase II would then continue the project on new location, tying back into SR 225 just south of MP 14.26 (Mill Creek bridge).

SR 225	05: 11,900 vpd
	11,900 vpa
Updated Traffic (AADT) – Design Year 2	2025:
	20,100 vpd
	,
Programmed/Schedule:	
P.E. <u>Year 1995</u> R/W: <u>Year 2005</u>	Construction: Year 2011
Revised cost estimates:	
1. Construction cost including infla	tion and E&C
a. Phase I	\$9,013,750
b. Phase II	\$2,443,750
2. Right-of-way	
a. Phase I	\$2,225,000
b. Phase II	\$ 750,000
3. Utilities	LGPA
Is the project located in a non-attainment	area?Yes X No

June 25, 2002

Project Number: STP-151-1(5) Phase I

STP-0003-00(061) Phase II

P.I. Number:

631550/0003061, Murray County

State of Georgia Department of Transportation

**Recommendation:** It is recommended that the proposed revision to the concept be approved for implementation.

Concur: Kanon L. Lings

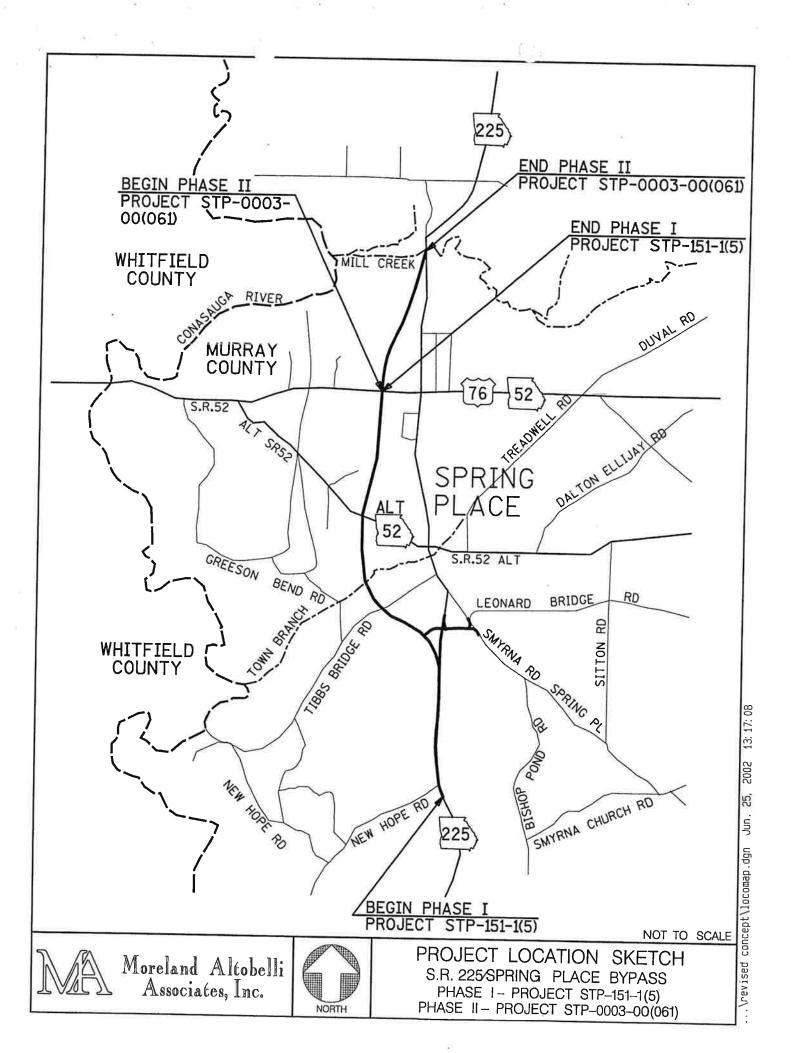
Director of Preconstruction

Approve:

Chief Engineer

#### Attachments:

- 1. Project Location Sketch
- 2. Cost Estimates, Phase I & II
- 3. Revised Traffic Analysis & Traffic Flow Diagrams



# **SUMMARY OF PROJECT COST**

# SR225 / SPRING PLACE BY-PASS PHASE 1 NEW HOPE ROAD TO SR52 / US76 STP- 151-1(5) MURRAY COUNTY P.I. NO. 631550

Non-Construction A. B.	Costs Right of Way Reimbursable Utilities	\$2,225,000 LGPA
Construction Cos	ts	
Construction Costs  C. Major Structures — D. Grading and Earthwork E. Drainage F. Base and Paving G. Concrete Work H. Sign, Stripe and Signals I. Traffic Control J. Erosion Control K. Misc.		\$2,500,000 \$800,000 \$316,000 \$2,700,000 \$240,000 \$225,000 \$150,000 \$80,000 \$200,000
	Sub-Total Three years inflation at 5% E & C at 10%  Total Construction Cost  Total Project Cost	\$7,211,000 \$1,081,650 \$721,100 \$9,013,750 \$11,238,750

## **SUMMARY OF PROJECT COST**

## SR225 / SPRING PLACE BY-PASS PHASE 2 SR52 / US76 to SR225 SOUTH OF MILL CREEK STP- 0003-00(061) MURRAY COUNTY P.I. NO. 0003061

Non-Construction	Costs
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A.	Right of Way	\$750,000
B.	Reimbursable Utilities	LGPA

#### **Construction Costs**

٠C.	Major Structures	\$0
D.	Grading and Earthwork	\$385,000
E.	Drainage	\$75,000
F.	Base and Paving	\$1,200,000
G.	Concrete Work	\$0
Н.	Sign, Stripe and Signals	\$100,000
I.	Traffic Control	\$35,000
J.	Erosion Control	\$60,000
K.	Misc.	\$100,000

Sub-Total	\$1,955,000
Three years inflation at 5%	\$293,250
E & C at 10%	<u>\$195,500</u>
Total Construction Cost	\$2,443,750

Total Project Cost \$3,193,750

June 24, 2002

Project Number: STP-151-1(5) Phase I

STP-0003-00(061) Phase II

P.I. Number:

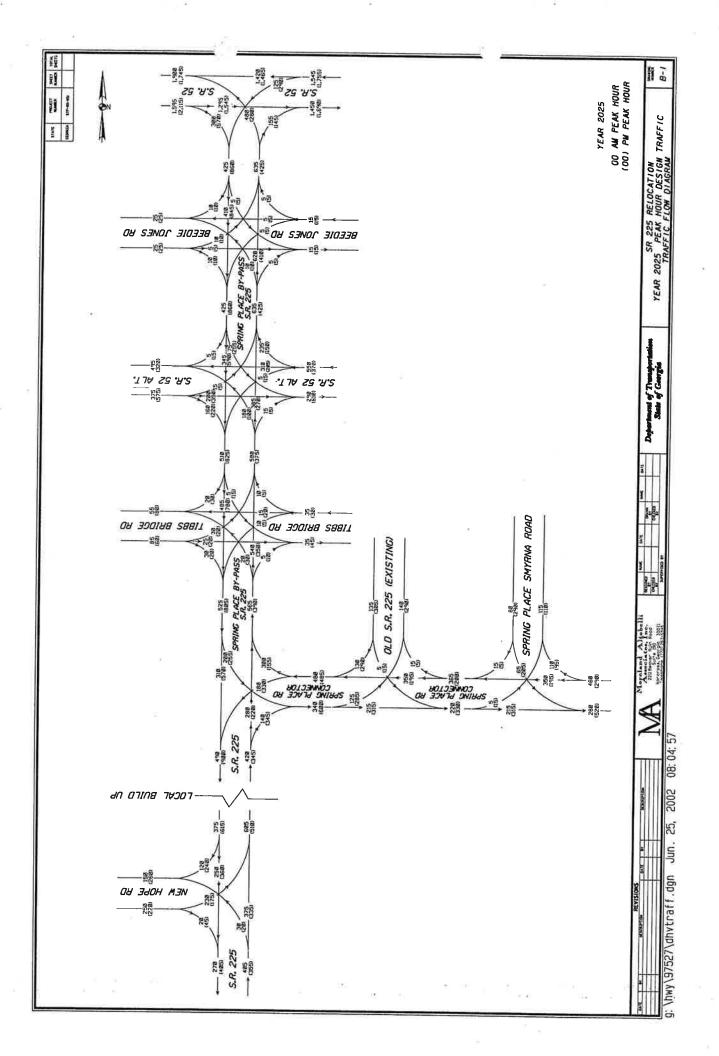
631550/0003061, Murray County

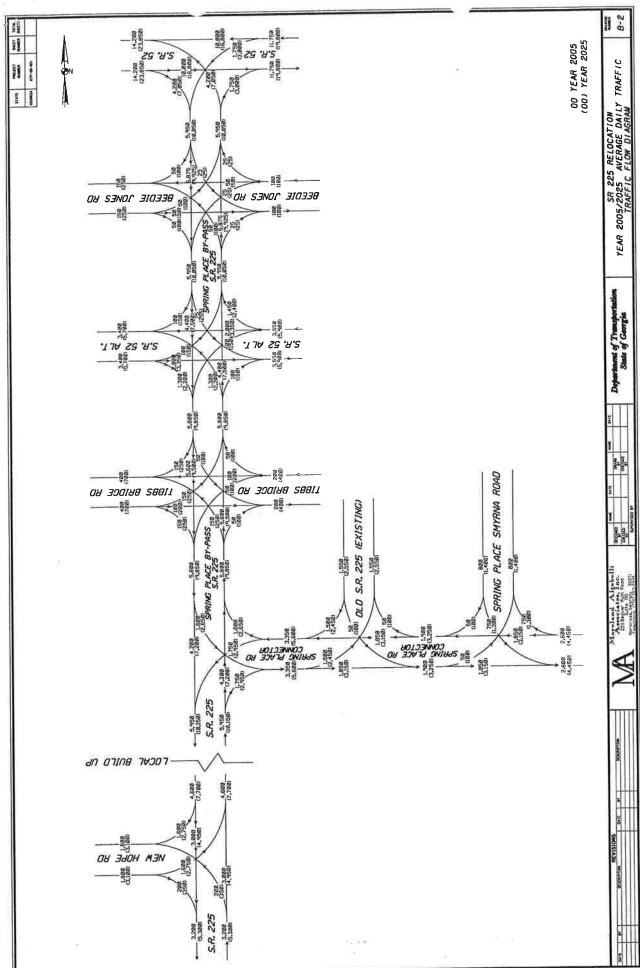
## REVISED TRAFFIC ANALYSIS & TRAFFIC FLOW DIAGRAMS

Future 2025 design year peak hour traffic conditions for SR 225 were analyzed using the Highway Capacity Software (HCS), version 4.1. The software analysis results in an intersection delay (sec/veh), which translates into a Level of Service (LOS) denoted by a letter designation for a given range of delay, as defined in the Highway Capacity Manual. The results of the analysis are provided below in Table 1 for the future 2025 design hour volumes.

Table 1 – HCS A	nalysis Results				
		AM		PM	
Intersection	Type	Delay	LOS	Delay	LOS
SR 225 at New Hope Road	Unsignalized	17.7	С	19.1	C
	Unsignalized	19.6	C	N/A	F
SR 225 at Spring Place Road Connector	Signalized	13.1	В	13.4	В
Spring Place Rd Conn. at Old SR 225	Unsignalized	11.8	В	13.5	В
Spring Place Rd Conn. at Spring Place Smyrna Rd	Unsignalized	14.1	В	25.2	D
SR 225 at Tibbs Bridge Road	Unsignalized	21.0	С	27.8	D
	Unsignalized	73.4	F	N/A	F
SR 225 at SR 52 Alternate	Signalized	17.9	В	18.8	В
SR 225 at Beddie Jones Road	Unsignalized	15.0	В	17.8	С
SR 225 at SR 52	Signalized	18.0	В	21.6	C

The results of the HCS analysis indicate that each intersection would independently operate at an acceptable level of service for both morning and evening peak time periods. Based on the HCS analysis results, it is recommended that the intersections along SR 225 at Spring Place Road Connector and SR 52 Alt. be signalized in order to provide a higher level of service to both the main roadway and the cross street.





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